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IBM Technical Disclosure Bulletins

Term: l1 same l2

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DATE: Thursday, May 25, 2006 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ			
L3	l1 same l2	49	L3
L2	psoriasis or scleroderma or keloids or surgical adhesions	54342	L2
L1	chondroitinase or heparanase or chondroitin sulfate degrading enzyme or glycosaminoglycan degrading enzyme or arylsulfatase	2431	L1

END OF SEARCH HISTORY

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=> d his

     (FILE 'HOME' ENTERED AT 17:57:11 ON 23 MAY 2006)

     FILE 'BIOSIS, MEDLINE' ENTERED AT 17:57:26 ON 23 MAY 2006

     FILE 'CA, BIOSIS, MEDLINE' ENTERED AT 17:57:33 ON 23 MAY 2006
L1       103719 S PSORIASIS? OR SCLERODERMA OR KELOID? OR (SURGICAL ADHESION?)
L2         6009 S CHONDROITINASE?
L3           36 S L1 AND L2
L4           28 DUP REM L3 (8 DUPLICATES REMOVED)

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Freeform Search

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Term: l11 same l12

Display: 10 **Documents in Display Format:** - **Starting with Number** 20

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Search History

DATE: Thursday, May 25, 2006 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ		
L13	l11 same l12	33	L13
L12	chondroitinase	1070	L12
L11	cancer	220023	L11
L10	L9 same chondroitinase	17	L10
L9	rheumatoid arthritis or psoriasis or ocular angiogenesis or rubeosis or osler-webber syndrome or myocardial angiogenesis or plaque neovasculaization or telangiectasia or hemophiliac joint or angiofibroma or crohn disease or atherosclersis or scleroderma or cirrhosis obesity or uterine bibroids or prostatic hypertrophy or amylodosis or endometriosis or polyposis	94924	L9
L8	L7 same l6 same l1	2	L8
L7	enzyme	347100	L7
L6	glycosaminoglycan	9877	L6
L5	L4 and l1	7	L5
L4	glycosaminoglycan degrading enzyme	89	L4
L3	l1 same l2	2	L3

L2	chondroitinase or heparinase or chrondroitin sulfate degrading enzyme	1915	L2
L1	hypertrophic scar	2264	L1

END OF SEARCH HISTORY

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NEWS 9	MAR 22	EMBASE is now updated on a daily basis
NEWS 10	APR 03	New IPC 8 fields and IPC thesaurus added to PATDPAFULL
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NEWS 18	MAY 19	Derwent World Patents Index to be reloaded and enhanced

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CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
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FILE 'HOME' ENTERED AT 17:57:11 ON 23 MAY 2006

=> file c, biosis, medline
'C' IS AN AMBIGUOUS FILE OR CLUSTER NAME
CASLINK - Linked CAS files (Predefined Search Sequences)
CASRNS - CAS Registry Numbers Cluster
CHEMENG - Chemical Engineering Cluster
CHEMISTRY - Chemical Literature Cluster
COMPANIES - Files for company based searches
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CONSTRUCTION - Building and Construction Cluster
CORPSOURCE - Files for STNINDEX corporate source based searches
CSAALL - Cambridge Scientific Abstracts Files Cluster
CURRENT - Current file environment Cluster
CA - The Chemical Abstracts File 1907-present
CABA - CAB ABSTRACTS 1973-present
CAOLD - The pre-1967 Chemical Abstracts File
CAPLUS - The Chemical Abstracts Plus File 1907-present
CASREACT - The Chemical Abstracts Reaction Search Service
CBNB - Chemical Business NewsBase from 1984-present
CEABA-VTB - Chem Eng and Biotech Abstr - Verfahrenstechn Ber 1966-
CERAB - Ceramic Abstracts/World Ceramic Abstracts from 1975
CHEMCATS - CHEMICAL CATALOGS ONLINE 1993-to the present
CHEMINFORMRX - The CHEMINFORMRX Reaction Search Service
CHEMLIST - Regulated Chemicals Listing
CHEMSAFE - CHEMSAFE - chemical safety information
CIN - The Chemical Industry Notes File for 1974-present
CIVILENG - Civil Engineering Abstracts 1966 to the present
COMPENDEX - COMPENDEX*PLUS File from 1970 - present
COMPUAB - Computer & Information Systems Abstracts 1981-present
COMPUSCIENCE - COMPUTERSCIENCE FROM 1972-2002
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'BIOSIS' ENTERED AT 17:57:26 ON 23 MAY 2006
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FILE 'MEDLINE' ENTERED AT 17:57:26 ON 23 MAY 2006

=> file ca, biosis, medline

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	1.26	1.47

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FILE 'MEDLINE' ENTERED AT 17:57:33 ON 23 MAY 2006

```
=> s psoriasis? or scleroderma or keloid? or (surgical adhesion?) or (pulmonary fibrosis?)
L1      103719 PSORIASIS? OR SCLERODERMA OR KELOID? OR (SURGICAL ADHESION?) OR
               (PULMONARY FIBROSIS?)

=> s chondroitinase?
L2        6009 CHONDROITINASE?

=> s l1 and l2
L3          36 L1 AND L2

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4          28 DUP REM L3 (8 DUPLICATES REMOVED)

=> d 1-28 ab,bib

L4   ANSWER 1 OF 28  CA  COPYRIGHT 2006 ACS on STN
AB   The invention relates to chondroitinase ABC I and uses thereof.
     In particular, the invention relates to recombinant and modified
     chondroitinase ABC I from Proteus vulgaris, their production and their
     uses.  The sub-cloning of the chondroitinase ABC I from P.
     vulgaris and its recombinant expression in E. coli are described.  This
     recombinant chondroitinase ABC I was also examined biochem.,
     providing the first conclusive evidence of the residues that constitute
     the enzyme active site.  By coupling kinetic anal. of site-directed
     mutants of the active site amino acids with the construction of theor.
     enzyme-substrate structural complexes to interpret the effects of the
     mutants, the detailed roles of the 4 active site amino acids (His501,
     Tyr508, Glu653, and Arg560) have been outlined.  The
     chondroitinase ABC I enzymes of the invention are useful for a
     variety of purposes, including degrading and analyzing polysaccharides
     such as glycosaminoglycans (GAGs).  These GAGs can include chondroitin
     sulfate, dermatan sulfate, unsulfated chondroitin and hyaluronan.  The
     chondroitinase ABC I enzymes can also be used in therapeutic
     methods such as promoting nerve regeneration, promoting stroke recovery,
     treating spinal cord injury, treating epithelial disease, treating
     infections and treating cancer.
AN   143:321134  CA
TI   Cloning, recombinant expression, characterization, and analytical and
     therapeutic uses of chondroitinase ABC I from Proteus vulgaris
IN   Prabhakar, Vikas; Capila, Ishan; Raman, Rahul; Bosques, Carlos; Pojasek,
     Kevin; Sasisekharan, Ram
PA   Massachusetts Institute of Technology, USA
SO   PCT Int. Appl., 243 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    --------------------   --------
PI   WO 2005087920        A2    20050922    WO 2005-US8194         20050310
     WO 2005087920        A3    20060202
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM,
             SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
     US 2006078959        A1    20060413    US 2005-78915          20050310
PRAI US 2004-552232P      P     20040310
     US 2004-578917P      P     20040610
     US 2004-625052P      P     20041103
```

L4 ANSWER 2 OF 28 CA COPYRIGHT 2006 ACS on STN

AB The invention relates to the discovery of novel members of **Chondroitinase** Glycoproteins (CHASEGP) family, methods of manufacture, and potential uses in conditions where removal of chondroitin sulfates may be of therapeutic benefit. **Chondroitinase** Glycoproteins require both a substantial portion of the catalytic domain of the CHASEGP polypeptide and asparagine-linked glycosylation for optimal **chondroitinase** activity. The invention also includes carboxy-terminal deletion variants of CHASEGP that result in secreted variants of the protein to facilitate manufacture of a recombinant CHASEGP. Further described are suitable formulations of a substantially purified recombinant CHASEGP glycoprotein derived from a eukaryotic cell that generate the proper glycosylation required for its optimal activity. CHASEGP is useful for the degradation of glycosaminoglycans and chondroitin sulfate proteoglycans under clin. conditions where their removal is of therapeutic value, such as in scar tissue therapy.

AN 141:119306 CA

TI Human and murine **chondroitinase** glycoprotein (CHASEGP), cDNA and protein sequences, process for preparing the same, and pharmaceutical compositions comprising thereof

IN Frost, Gregory I.; Kundu, Anirban; Bookbinder, Louis H.

PA Deliatroph Pharmaceuticals Inc., USA; Halozyme Inc.

SO PCT Int. Appl., 106 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004058147	A2	20040715	WO 2003-US40090	20031215
	WO 2004058147	A3	20050922		
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	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2508948	AA	20040715	CA 2003-2508948	20031215
	AU 2003297199	A1	20040722	AU 2003-297199	20031215
	EP 1636248	A2	20060322	EP 2003-814054	20031215
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI	US 2002-433532P	P	20021216		
	WO 2003-US40090	W	20031215		

L4 ANSWER 3 OF 28 MEDLINE on STN

AB Myofibroblasts play an important role in fibrogenesis. Myofibroblasts secrete several components of the extracellular matrix, including decorin. To clarify the properties of decorin synthesized by myofibroblasts, we have purified and characterized decorin secreted into culture medium by the myofibroblast cell line MRC-5. Decorin was purified by successive chromatography steps using Hitrap Q and Superdex 200. Purified decorin showed a broad band on SDS-polyacrylamide gel electrophoresis, which was resolved into two smaller molecular weight bands after digestion with **chondroitinase** ABC. Further digestion with N-glycanase resolved these two bands into a single band, indicating that the N-glycation pattern of decorin is heterogeneous. The N-terminal amino acid sequence analysis of the purified protein and its reactivity towards an antibody raised against a C-terminal peptide of decorin indicate that MRC-5 cells secrete full-length decorin into the culture medium. To characterize the glycosaminoglycan chains attached to decorin, glycosaminoglycans from the purified protein were treated with **chondroitinase** ACI, **chondroitinase** ACII, **chondroitinase** ABC and **chondroitinase** B. The resulting disaccharides were analyzed by chromatography, which indicated that decorin secreted by MRC-5 cells is a

dermatan sulfate proteoglycan. In conclusion, the decorin secreted by MRC-5 cells has similar characteristics to the decorin expressed in several tissues. Thus, culturing MRC-5 cells may be highly useful for studying the role of decorin and myofibroblasts in fibrosis.

AN 2004250010 MEDLINE
DN PubMed ID: 15147741
TI Purification and characterization of decorin from the culture media of MRC-5 cells.
AU Honda Eiko; Munakata Hiroshi
CS Life Science Institute, School of Medicine, Kinki University, 377-2 Ohno-Higashi, Osaka-Sayama 589-8511, Japan.
SO The international journal of biochemistry & cell biology, (2004 Aug) Vol. 36, No. 8, pp. 1635-44.
Journal code: 9508482. ISSN: 1357-2725.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200503
ED Entered STN: 20 May 2004
Last Updated on STN: 22 Mar 2005
Entered Medline: 21 Mar 2005

L4 ANSWER 4 OF 28 CA COPYRIGHT 2006 ACS on STN
AB CNS lesions induce production of ECM mols. that inhibit axon regeneration. One major inhibitory family is the chondroitin sulfate proteoglycans (CSPGs). Reduction of their glycosaminoglycan (GAG) chains with **chondroitinase** ABC leads to increased axon regeneration that does not extend well past the lesion. **Chondroitinase** ABC, however, is unable to completely digest the GAG chains from the protein core, leaving an inhibitory "stub" carbohydrate behind. We used a newly designed DNA enzyme, which targets the mRNA of a critical enzyme that initiates glycosylation of the protein backbone of PGs, xylosyltransferase-1. DNA enzyme administration to TGF-β-stimulated astrocytes in culture reduced specific GAG chains. The same DNA enzyme applied to the injured spinal cord led to a strong reduction of the GAG chains in the lesion penumbra and allowed axons to regenerate around the core of the lesion. Our expts. demonstrate the critical role of PGs, and particularly those in the penumbra, in causing regeneration failure in the adult spinal cord.

AN 140:301742 CA
TI A novel DNA enzyme reduces glycosaminoglycan chains in the glial scar and allows microtransplanted dorsal root ganglia axons to regenerate beyond lesions in the spinal cord
AU Grimpe, Barbara; Silver, Jerry
CS School of Medicine, Department of Neurosciences, Case Western Reserve University, Cleveland, OH, 44106, USA
SO Journal of Neuroscience (2004), 24(6), 1393-1397
CODEN: JNRSDS; ISSN: 0270-6474
PB Society for Neuroscience
DT Journal
LA English
RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 28 MEDLINE on STN
AB OBJECTIVES: The aim of this investigation is to compare the relative proportions of disaccharides of **chondroitinase**-digestible glycosaminoglycans (GAGs) among the different body sites in control human skin and in the skin lesions of patients with localized **scleroderma**. METHODS: The disaccharide relative proportions were determined using high-performance liquid chromatography (HPLC). RESULTS: DeltaDi-4S, the main disaccharide unit of dermatan sulphate (DS), was the major skin GAG disaccharide (approximately 70% of the total) in control skin among all different body sites studied here. In **scleroderma** there was an increase in the relative proportion of both deltaDi-HA, the main disaccharide unit of hyaluronic acid (HA), and deltaDi-diS(B) (alpha-deltaUA(2SO4)-1-->3-GalNAc(4SO4)), derived from DS, and a decrease in deltaDi-4S, as compared with the uninvolved skin or the site-matched

control skin. CONCLUSION: DS is the major GAG species in normal skin from different body sites. In addition, our results suggest a decrease and also a structural change in DS and an increase in the proportion of HA in **scleroderma** skin.

AN 2003091094 MEDLINE
DN PubMed ID: 12602961
TI Comparative biochemistry of human skin: glycosaminoglycans from different body sites in normal subjects and in patients with localized **scleroderma**.
AU Passos C O; Werneck C C; Onofre G R; Pagani E A; Filgueira A L; Silva L C F
CS Laboratorio de Tecido Conjuntivo, Hospital Universitario Clementino Fraga Filho, Universidade Federal do Rio de Janeiro, 21941-590, Caixa Postal 68041, Rio de Janeiro, RJ, Brasil.
SO Journal of the European Academy of Dermatology and Venereology : JEADV, (2003 Jan) Vol. 17, No. 1, pp. 14-9.
Journal code: 9216037. ISSN: 0926-9959.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200305
ED Entered STN: 27 Feb 2003
Last Updated on STN: 28 May 2003
Entered Medline: 27 May 2003

L4 ANSWER 6 OF 28 CA COPYRIGHT 2006 ACS on STN
AB Methods are provided for determining cartilage degeneration or regeneration in a joint tissue in a patient by measuring levels of osteogenic protein-1 (OP-1) protein and/or mRNA in synovial fluid or joint tissue. The methods according to the invention are useful for detecting, diagnosing, predicting, determining a predisposition for, or monitoring joint tissue degeneration and regeneration in a patient including inflammatory joint disease or age-related disorders.
AN 137:181946 CA
TI Methods of using bone morphogenic proteins as biomarkers for determining cartilage degeneration and aging
IN Chubinskaya, Susanna; Rueger, David C.; Kuettner, Klaus E.
PA Stryker Corporation, USA
SO PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002068962	A2	20020906	WO 2002-US5551	20020220
	WO 2002068962	A3	20031127		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2438757	AA	20020906	CA 2002-2438757	20020220
	US 2002192679	A1	20021219	US 2002-81163	20020220
	EP 1390757	A2	20040225	EP 2002-706405	20020220
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2005528581	T2	20050922	JP 2002-568028	20020220
PRAI	US 2001-270528P	P	20010221		
	US 2001-348111P	P	20011109		
	WO 2002-US5551	W	20020220		

L4 ANSWER 7 OF 28 CA COPYRIGHT 2006 ACS on STN

AB Highly purified and specific glycosaminoglycan-degrading enzymes, **chondroitinase** B and **chondroitinase** AC, are used to treat fibroproliferative diseases. The enzymic removal of chondroitin sulfate B (dermatan sulfate), and to a lesser extent, chondroitin sulfate A or C, from cell surfaces effectively decreases growth factor receptors on the cells and thereby decreases the cell proliferative response to such growth factors. In addition, removal of chondroitin sulfates reduces secretion of collagen, one of the major extracellular matrix components. Through the combined inhibition of fibroblast proliferation and collagen synthesis, treatment with **chondroitinase** B or **chondroitinase** AC decreases the size of fibrous tissue found in **psoriasis**, **scleroderma**, **keloids**, **pulmonary fibrosis** and **surgical adhesions**.

AN 135:533 CA

TI Glycosaminoglycan-degrading enzymes for attenuation of fibroblast proliferation

IN Denholm, Elizabeth M.; Cauchon, Elizabeth; Silver, Paul J.

PA Ibex Technologies, Inc., USA

SO PCT Int. Appl., 28 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001039795	A2	20010607	WO 2000-US32399	20001128
	WO 2001039795	A3	20011227		
	WO 2001039795	C2	20020725		
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	CA 2393186	AA	20010607	CA 2000-2393186	20001128
	EP 1263459	A2	20021211	EP 2000-980839	20001128
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	JP 2004504262	T2	20040212	JP 2001-541527	20001128
	AU 781600	B2	20050602	AU 2001-18050	20001128
	US 2002102249	A1	20020801	US 2000-727873	20001201
	US 2004018187	A1	20040129	US 2003-623398	20030718
PRAI	US 1999-168518P	P	19991202		
	WO 2000-US32399	W	20001128		
	US 2000-727873	A1	20001201		

L4 ANSWER 8 OF 28 CA COPYRIGHT 2006 ACS on STN

AB Surface tissue diseases are treated by using medicinal compns. which contain as the active ingredient a galactosaminoglycan having a specific uronic acid composition, **chondroitinase** B-digestion ratio, sulfate group number and disaccharide composition or a pharmacol. acceptable salts thereof. Thus, wounds in surface tissues (in particular, burn, skin ulcer, bedsore, etc.), on which no sufficient clin. effect can be achieved by the conventional therapy and remedies, can be efficaciously treated without causing any significant side effects. Moreover, itching associating chronic diseases (atopic dermatitis, urticaria, eczema, pruritus cutaneous, prurigo, vulgar **psoriasis** with itching, etc.) can be efficaciously prevented and treated thereby.

AN 135:531 CA

TI Method of treating surface tissue disease

IN Isaki, Seiichi; Kyogashima, Mamoru; Hori, Yusuke; Sakai, Tokiko

PA Seikagaku Corporation, Japan

SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2

DT Patent

LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001038399	A1	20010531	WO 2000-JP8281	20001124
	W: CA, NO, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	JP 2001151680	A2	20010605	JP 1999-332773	19991124
	JP 2001187740	A2	20010710	JP 2000-5305	20000105
PRAI	JP 1999-332773	A	19991124		
	JP 2000-5305	A	20000105		

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 28 CA COPYRIGHT 2006 ACS on STN
AB A highly purified and specific glycosaminoglycan degrading enzyme, **chondroitinase** AC, and to a lesser extent, **chondroitinase** B, can be used in the treatment of metastatic cancers and in other disorders characterized by angiogenesis. The enzymic removal of chondroitin sulfates A and C, and to a lesser extent, chondroitin sulfate B, from cell surfaces directly decreases the ability of tumor cells to invade blood vessels and thus prevents the formation of metastatic, or secondary tumors; inhibits tumor cell growth; and decreases angiogenesis by inhibiting both endothelial cell proliferation and capillary formation. Decreasing the formation of new blood vessels into the tumor in turn decreases the potential for tumor growth, and further decreases the ability of tumor cells to invade the bloodstream. These effects are opposite to the pro-metastatic effects of tumor-secreted heparanase.
AN 134:361354 CA
TI Attenuation of tumor growth, metastasis and angiogenesis
IN Denholm, Elizabeth M.; Lin, Yong-qing; Silver, Paul J.
PA Ibex Technologies, Inc., USA
SO PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001035977	A2	20010525	WO 2000-US31663	20001117
	WO 2001035977	A3	20020117		
	WO 2001035977	C2	20020725		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2414185	AA	20010525	CA 2000-2414185	20001117
	EP 1231935	A2	20020821	EP 2000-978781	20001117
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	AU 783222	B2	20051006	AU 2001-16206	20001117
	US 6979563	B1	20051227	US 2000-715965	20001117
	US 2004018186	A1	20040129	US 2003-623383	20030718
PRAI	US 1999-165957P	P	19991117		
	US 2000-715965	A1	20001117		
	WO 2000-US31663	W	20001117		

L4 ANSWER 10 OF 28 CA COPYRIGHT 2006 ACS on STN DUPLICATE 1
AB **Keloids** are exuberant scars, in which collagen, fibronectin and glycosaminoglycans are overdeposited. Biochem. anal. of the collagen isolated from normal skin and **keloid** tissue by pepsin treatment, indicated an increase in the type III and glycosaminoglycan (GAG) content. Viscosity measurements of collagen from normal skin and **keloid**

tissue were used in the present study to establish the interaction between collagen and GAG. Physico-chemical properties such as intrinsic viscosity, reduced viscosity and hydrated volume were computed from viscosity measurements. These measurements were also used to determine the denaturation temperature of collagen, which was further confirmed by DSC measurements. **Chondroitinase** has been used in this study to probe the influence of GAG on the physico-chemical characteristic of **keloid** collagen.

AN 131:309425 CA
TI Biochemical and dynamic studies of collagen from human normal skin and **keloid** tissue
AU Prathiba, V.; Suryanarayanan, M.
CS Central Leather Research Institute, Chennai, 600 020, India
SO Indian Journal of Biochemistry & Biophysics (1999), 36(3), 158-164
CODEN: IJBBBQ; ISSN: 0301-1208
PB National Institute of Science Communication, CSIR
DT Journal
LA English
RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 28 MEDLINE on STN
AB We report a 69-year-old man with severe generalized morphea, who showed over 80% of skin involvement, while the internal organs were not affected. We performed histological examinations and analysis of skin disaccharides constituting **chondroitinase**-digestible glycosaminoglycans in the center and periphery of the sclerotic lesions and the clinically uninvolved skin. In both the central and peripheral parts of the sclerotic lesions, sclerotic fibrosis and a dense perivascular cell infiltration, consistent with morphea, were seen in the entire dermis and subcutis. Furthermore, various vascular changes were observed, such as endothelial cell swell, thickened basement membrane and obstruction of vascular lumen in the fat lobules. In the clinically uninvolved skin, interstitial edema was prominent along with a slight perivascular cell infiltration. On disaccharide analysis, the increase in the amount of delta Di-4S(DS), the main disaccharide unit of dermatan sulphate, delta Di-6S and delta Di-6S, the main disaccharide units of chondroitin sulphate, and the decrease in delta Di-HA, which is derived from hyaluronate, were found not only in the sclerotic lesions but also in the clinically uninvolved skin, though less prominent. These alterations were consistent with systemic sclerosis, suggesting a close relationship between severe forms of generalized morphea and systemic sclerosis.

AN 96312699 MEDLINE
DN PubMed ID: 8740270
TI Generalized morphea with vascular involvement. A case report and disaccharide analysis of the skin glycosaminoglycans.
AU Akimoto S; Ishikawa O; Yokoyama Y; Amano H; Miyachi Y
CS Department of Dermatology, Gunma University, School of Medicine, Maebashi, Japan.
SO Acta dermato-venereologica, (1996 Mar) Vol. 76, No. 2, pp. 141-3.
Journal code: 0370310. ISSN: 0001-5555.
CY Norway
DT (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199611
ED Entered STN: 19 Dec 1996
Last Updated on STN: 19 Dec 1996
Entered Medline: 18 Nov 1996

L4 ANSWER 12 OF 28 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 2
AB Cell surface anionic charge is known to be related to various cellular functions. Therefore, we ultrastructurally localized anionic sites in normal and psoriatic human epidermis, using poly-L-lysine-gold complex (cationic gold), to assess their possible participation in the differentiation of keratinocytes and the pathogenesis of **psoriasis**. In normal and psoriatic epidermis, the cell membrane of keratinocytes showed positive staining at pH 2.0. At pH 7.4 the cytoplasm and nucleus

were diffusely stained, in addition to the cell membrane. In normal epidermis, the intensity of labelling on the cell membrane at pH 2.0 was strong in the basal layer and lower stratum spinosum, and decreased in parallel with differentiation of keratinocytes. In psoriatic epidermis, the intensity of labelling on the cell membrane at pH 2.0 was stronger than in normal epidermis. In normal epidermis, heparitinase digested 63% and **chondroitinase** ABC digested 80% of cationic labelling. This suggests that heparan sulphate and chondroitin sulphate (and/or dermatan sulphate) constitute anionic sites in normal epidermis. In psoriatic epidermis, **chondroitinase** ABC-sensitive anionic sites were greatly increased, whereas heparitinase-sensitive anionic sites were the same, when compared with normal epidermis. This suggests that chondroitin sulphate and/or dermatan sulphate constitute anionic sites which are increased in psoriatic epidermis.

AN 1995:299423 BIOSIS
DN PREV199598313723
TI Localization of anionic sites in normal and psoriatic epidermis: The effect of enzyme digestion on these anionic sites.
AU Saga, K.; Takahashi, M.
CS Dep. Dermatol., Sapporo Med. Univ. Sch. Med., Minami 1 Nishi 16, Chyuo-ku, Sapporo 060, Japan
SO British Journal of Dermatology, (1995) Vol. 132, No. 5, pp. 710-717. CODEN: BJDEAZ. ISSN: 0007-0963.
DT Article
LA English
ED Entered STN: 11 Jul 1995
Last Updated on STN: 11 Jul 1995

L4 ANSWER 13 OF 28 CA COPYRIGHT 2006 ACS on STN DUPLICATE 3
AB Collagen and acid glycosaminoglycans in the skin of progressive systemic sclerosis (PSS) were examined by polarization microscopy. Picrosirius Red and Toluidine Blue (pH 5.8) were used as stains. Digestion with **chondroitinase** ABC or streptomyces hyaluronidase were also employed. Under polarized light, the Picrosirius Red-stained collagen appeared green at any stage in PSS and orange in controls. Toluidine Blue-induced birefringence at stage I diminished in the presence of 0.2 M MgCl2 and in stage II in the presence of 0.3 M MgCl2. The collagen fibrils in PSS skin were significantly smaller in diameter than in controls. These results suggest that the change of polarization colors is due to the modulation of collagen thickness caused by an increased accumulation of acid glycosaminoglycans.

AN 123:106917 CA
TI Polarization microscopic investigation of collagen and acid glycosaminoglycans in the skin of progressive systemic sclerosis (PSS)
AU Yamamoto, Nobuhiro; Nishioka, Shoji; Sasai, Yoichiro
CS School of Medicine, Kurume University, Kurume, 830, Japan
SO Acta Histochemica (1995), 97(2), 195-202 CODEN: AHISA9; ISSN: 0065-1281
DT Journal
LA English

L4 ANSWER 14 OF 28 MEDLINE on STN
AB The disaccharide content of the **chondroitinase**-digestible glycosaminoglycans (GAGs) extracted from 6-mm skin punch biopsies from the atrophic and sclerotic skin of two patients with Werner's syndrome (WS) were determined using high-performance liquid chromatography after 1-phenyl-3-methyl-5-pyrazolone labelling. The total amount of main disaccharides was significantly decreased in the atrophic lesions of WS. In the atrophic forearm skin, the decrease in the main disaccharide unit of hyaluronic acid, delta Di-HA, and the increase in the ratio of the main disaccharide unit of dermatan sulphate, delta Di-4S, to delta Di-HA were significant vs. normal control ($P < 0.01$ and 0.05, respectively). The sclerotic skin showed an increase in delta Di-4S (DS) ($P < 0.05$) and a decrease in delta Di-HA ($P < 0.02$) compared with normal controls, as well as a significantly higher ratio of delta Di-4S (DS)/delta Di-HA compared with normal controls ($P < 0.0002$) and systemic sclerosis patients (SSc; $P < 0.02$). No other statistical difference was found in the amount of each main disaccharide unit between the sclerotic skin of WS and SSc. Histological examination revealed that the atrophic skin showed thinning

of the dermis with a slight increase of fine collagen bundles, whereas the sclerotic skin demonstrated a thickened dermis with prominent deposition of fine collagen bundles in the deep dermis. In SSc, thickening of the whole dermis, composed of hyalinized or swollen collagen bundles, was found.(ABSTRACT TRUNCATED AT 250 WORDS)

AN 95196383 MEDLINE
DN PubMed ID: 7889670
TI Disaccharide analysis of the skin glycosaminoglycans in patients with Werner's syndrome.
AU Higuchi T; Ishikawa O; Hayashi H; Ohnishi K; Miyachi Y
CS Department of Dermatology, Gumma University School of Medicine, Japan.
SO Clinical and experimental dermatology, (1994 Nov) Vol. 19, No. 6, pp. 487-91.
Journal code: 7606847. ISSN: 0307-6938.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199504
ED Entered STN: 27 Apr 1995
Last Updated on STN: 6 Feb 1998
Entered Medline: 20 Apr 1995

L4 ANSWER 15 OF 28 MEDLINE on STN
AB The disaccharide contents of **chondroitinase**-digestible glycosaminoglycans extracted from a 6-mm punch biopsy of the forearm skin were determined using high-performance liquid chromatography after 1-phenyl-3-methyl-5-pyrasolone labelling. In 9 patients with systemic sclerosis, the amounts of both the main disaccharide unit of dermatan sulfate and chondroitin sulfate C increased significantly, as compared with 7 site-matched controls. Furthermore, the increase in dermatan sulfate was significantly correlated with both the clinical severity and the extent of skin sclerosis, while the main disaccharide unit of hyaluronic acid tended to decrease. These results confirm that changes in skin glycosaminoglycans are closely related to fibrotic processes and suggest that the alterations of disaccharide components may play a role in the collagen deposition in systemic sclerosis.
AN 94353822 MEDLINE
DN PubMed ID: 7915457
TI Changes in skin disaccharide components correlate with the severity of sclerotic skin in systemic sclerosis.
AU Higuchi T; Ohnishi K; Hayashi H; Ishikawa O; Miyachi Y
CS Department of Dermatology, Gunma University School of Medicine, Maebashi, Japan.
SO Acta dermato-venereologica, (1994 May) Vol. 74, No. 3, pp. 179-82.
Journal code: 0370310. ISSN: 0001-5555.
CY Norway
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199409
ED Entered STN: 6 Oct 1994
Last Updated on STN: 6 Oct 1994
Entered Medline: 23 Sep 1994

L4 ANSWER 16 OF 28 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 4
AB The disaccharides constituting **chondroitinase**-digestible glycosaminoglycan (GAG) in the skin lesions of patients with systemic sclerosis were determined using high-performance liquid chromatography (HPLC). In **scleroderma** there was an increase in the amount of ΔDi-4S(DS), the main disaccharide unit of dermatan sulphate, and a decrease in ΔDi-HA, the disaccharide unit of hyaluronic acid, as compared with normal skin from a similar site. The distribution pattern of the main disaccharides constituting chondroitin sulphate and dermatan sulphate in **scleroderma** differed from that in scars or **scleroderma**.
AN 1992:304516 BIOSIS
DN PREV199294017666; BA94:17666

TI DISACCHARIDE ANALYSIS OF THE SKIN GLYCOSAMINOGLYCANS IN SYSTEMIC SCLEROSIS.
AU AKIMOTO S [Reprint author]; HAYASHI H; ISHIKAWA H
CS DEP DERMATOL, GUNMA UNIV SCH MED, 371 MAEBASHI, JPN
SO British Journal of Dermatology, (1992) Vol. 126, No. 1, pp. 29-34.
CODEN: BJDEAZ. ISSN: 0007-0963.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 27 Jun 1992
Last Updated on STN: 27 Jun 1992

L4 ANSWER 17 OF 28 CA COPYRIGHT 2006 ACS on STN
AB A D-glucuronic acid-rich copolymeric chondroitin sulfate (CS)-dermatan sulfate (DS) proteoglycan (PG) from post-burn hypertrophic scar tissue (HSc) was obtained by DEAE-cellulose chromatog. differential ethanol fractionation, and purification on a Sepharose CL-6B column. CS-DS-PG protein content was 14%. The amino-terminal amino acid sequence of the first 10 residues was NH2-Asp-Glu-Ala-B-Gly-Ile-Gly-Pro-Glu-Val. This sequence was identical to that of human embryonic fibroblast cells IMR-90 CS-DS-PG, as well as to human HSc-DS-PG. After **chondroitinase** ABC treatment, two peptides (22,000 and 16,000 daltons) were detected by SDS-PAGE. ELISA anal. using rabbit antiserum raised against a synthetic peptide that contained 15 amino acids in the same sequence as the amino terminus of human fetal membrane PG showed reactivity with HSc CS-DS-PG. HSc CS-DS-PG had an apparent mol. weight of .apprx.78,000 daltons, as determined by Sepharose CL-6B chromatog. and SDS-PAGE. Alkaline borohydride treatment of CS-DS-PG liberated CS-DS glycosaminoglycan (GAG) chains having a mol. weight of 29,000 daltons. The conversion of xylose to xylitol indicated that the GAG chains were attached to the PG proteins core at O-3 through a xylosyl-seryl linkage. CS-DS-PG also contained both N- and O-linked oligosaccharides and did not aggregate with hyaluronic acid. Thus, HSc CS-DS-PG and DS-PG had the same A1-A15 amino acid sequence at the amino terminus but different protein cores. HSc CS-DS-PG was completely digested with **chondroitinase** AC and is distinctly different from HSc DS-PG.
AN 112:176441 CA
TI Isolation and some structure analyses of a copolymeric chondroitin sulfate-dermatan sulfate proteoglycan from post-burn, human hypertrophic scar
AU Garg, Hari G.; Siebert, Elizabeth P.; Swann, David A.
CS Dep. Biol. Chem. Mol. Pharmacol., Harvard Med. Sch., Boston, MA, 02114, USA
SO Carbohydrate Research (1990), 197, 159-69
CODEN: CRBRAT; ISSN: 0008-6215
DT Journal
LA English

L4 ANSWER 18 OF 28 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 5
AB Using a material consisting of related dermal specimens and 24-h urine samples from 17 psoriatics and 20 non-psoriatics, it was shown for the 1st time that the excretion of dermatan sulfate and a fraction of **chondroitinase** ABC resistant GAG [glycosaminoglycan] (heparan sulfate) are positively associated with the tissue content of the analytically identical glycosaminoglycans in dermis. The excretion of chondroitin 4/6 sulfate, total hydroxyproline and a peptide-bound fraction of this does not mirror the tissue content of the corresponding constituents in dermis. There was no difference in the type of association between tissue and urine measurements in psoriatics and non-psoriatics. The results were analyzed using multiple regression to avoid the unwanted effect of diverse concomitant variables (6 variables).
AN 1985:251673 BIOSIS
DN PREV198579031669; BA79:31669
TI THE RELATIONSHIP BETWEEN THE DERMAL CONTENT AND THE 24 HOUR EXCRETION OF ANALYTICALLY IDENTICAL GLYCOSAMINOGLYCANS IN HUMANS.
AU POULSEN J H [Reprint author]; VAETH M
CS DEP CLIN CHEM, AARHUS KOMMUNEHOSP, DK-8000 AARHUS C, DENMARK
SO Scandinavian Journal of Clinical and Laboratory Investigation, (1984) Vol.

44, No. 6, pp. 535-540.
CODEN: SJCLAY. ISSN: 0036-5513.
DT Article
FS BA
LA ENGLISH

L4 ANSWER 19 OF 28 CA COPYRIGHT 2006 ACS on STN DUPLICATE 6
AB At 5, 15, and 45 days following induction of interstitial **pulmonary fibrosis** by intratracheal administration of bleomycin in hamsters, glycosaminoglycan synthesis was measured, using [35S]sulfate. Total labeled sulfate incorporation into lung glycosaminoglycans was maximally increased over that of saline-instilled controls at 5 days, declined markedly at 15 days, and returned to control values at 45 days. Separation of the various labeled glycosaminoglycans by **chondroitinase** digestion and chromatog. revealed a transient increase, when compared with controls, in the proportion of labeled chondroitin 4-sulfate at 5 days, followed by an increase in proportionate labeling of dermatan sulfate at 15 and 45 days postbleomycin. Autoradiog., using [35S]sulfate, performed at 21 days postbleomycin, revealed an increase, when compared with controls, in film grain formation in areas of interstitial reaction. Grain formation was greatly reduced by pretreatment of the slide sections with hyaluronidase and **chondroitinase**, demonstrating the specificity of the label for glycosaminoglycans. Thus, glycosaminoglycan synthesis is significantly altered from normal in this model of interstitial lung disease and dermatan sulfate is preferentially synthesized during the fibrotic phase of the lung reaction.
AN 99:210699 CA
TI Glycosaminoglycan synthesis in bleomycin-induced **pulmonary fibrosis**: biochemistry and autoradiography
AU Cantor, J. O.; Cerreta, J. M.; Osman, M.; Mott, S. H.; Mandl, I.; Turino, G. M.
CS Coll. Physicians Surg., Columbia Univ., New York, NY, 10032, USA
SO Proceedings of the Society for Experimental Biology and Medicine (1983), 174(2), 172-81
CODEN: PSEBAA; ISSN: 0037-9727
DT Journal
LA English

L4 ANSWER 20 OF 28 MEDLINE on STN
AB The investigation included 15 psoriatic patients and 14 healthy controls. By using a simple method based on susceptibility to **chondroitinases** the excretion of dermatan sulphate, chondroitin-4/6-sulphate and heparan sulphate in the psoriatics was found to be increased with 104, 62 and 47% from uronic acid mean excretions of 1.97, 6.37 and 5.10 mumol/24 h, respectively. The excretion of hydroxyproline was not increased. In both groups the excretion of hyaluronic acid was insignificant. The absolute increase in the excretion of a major skin component like dermatan sulphate was exceeded by the excretion of chondroitin-4/6-sulphate and heparan sulphate which are both small components of skin. This indicates a comparatively high turnover of those two fractions in psoriatic lesions. The fact, that only the excretion of dermatan sulphate correlated with the fraction of skin surface involved in the psoriatic disease, indicated an important origin of this fraction, as well as the possibility of dermatan sulphate as a means of following dermal metabolism.
AN 83103540 MEDLINE
DN PubMed ID: 6817946
TI Dermatan sulphate in urine reflects the extent of skin affection in **psoriasis**.
AU Poulsen J H; Cramers M K
SO Clinica chimica acta; international journal of clinical chemistry, (1982 Dec 9) Vol. 126, No. 2, pp. 119-26.
Journal code: 1302422. ISSN: 0009-8981.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198303

ED Entered STN: 18 Mar 1990
Last Updated on STN: 6 Feb 1998
Entered Medline: 11 Mar 1983

L4 ANSWER 21 OF 28 CA COPYRIGHT 2006 ACS on STN DUPLICATE 7
AB The compositional changes of acidic glycosaminoglycans (AGAG) in the urine of progressive systemic sclerosis (PSS) patients were studied using **chondroitinases** and heparitinase in enzyme assays and by electrophoretic characterization. The daily urinary excretion of AGAG in the patients with PSS was increased when compared to normals. The proportion of urinary AGAG in PSS patients, which was undigested by **chondroitinase**-ABC [most probably representing heparan sulfates (HS)], increased significantly from the normal value. The substance was mainly HS as determined by the electrophoretic pattern, thin-layer chromatog. anal., and by its susceptibility to heparitinase. After digestion of urinary chondroitin sulfate isomers with **chondroitinases**, the unsatd. disaccharides were mainly separated into 4-sulfated and 6-sulfated disaccharide units by paper chromatog. In all of the patients with PSS, the ratio of the unsatd. 4-sulfated disaccharide to the unsatd. 6-sulfated disaccharide was higher than that in normal subjects. These observations indicate an abnormal turnover of AGAG in patients with PSS.
AN 94:13708 CA
TI Compositional changes of urinary acidic glycosaminoglycans in progressive systemic sclerosis
AU Murata, K.; Takeda, M.
CS Sch. Med., Univ. Tokyo, Tokyo, 113, Japan
SO Clinica Chimica Acta (1980), 108(1), 49-59
CODEN: CCATAR; ISSN: 0009-8981
DT Journal
LA English

L4 ANSWER 22 OF 28 CA COPYRIGHT 2006 ACS on STN
AB Hamsters with N-nitroso-N-methylurethane (NNNMU) induced **pulmonary fibrosis** showed a significantly greater incorporation of 35S into lung glycosaminoglycans that did control tissues. The diseased lungs contained a significantly higher percentage of labeled disaccharides of chondroitin 4-sulfate and dermatan sulfate than controls. Conversely, the NNNMU-treated lungs had significantly lower percentages of labeled heparin and/or heparan sulfate than controls. A pos. correlation existed between the severity of lung disease and the uptake of label by disaccharides of chondroitin sulfate and dermatan sulfate. A neg. correlation existed between percent of label incorporation into **chondroitinase** -resistant heparin and/or heparan sulfate and the severity of the disease. The uptake of proline-3H into lung collagen was significantly lower in NNNMU-treated animals than in controls. Apparently, alterations in the synthesis of glycosaminoglycans occur during the lung repair process. The histol. apparent increase in lung collagen in **pulmonary fibrosis** does not correlate with the biochem. anal.
AN 93:67951 CA
TI Glycosaminoglycan and collagen synthesis in N-nitroso-N-methylurethane induced **pulmonary fibrosis**
AU Cantor, J. O.; Bray, B. A.; Ryan, S. F.; Mandl, I.; Turino, G. M.
CS Coll. Physicians Surg., Columbia Univ., New York, NY, 10032, USA
SO Proceedings of the Society for Experimental Biology and Medicine (1980), 164(1), 1-8
CODEN: PSEBAA; ISSN: 0037-9727
DT Journal
LA English

L4 ANSWER 23 OF 28 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AB Acidic glycosaminoglycans (GAG) prepared from human scar and **keloid**, was assayed for separation and quantitative measurement with the paper chromatographic characteristic of the unsaturated disaccharide unit after **chondroitinase** digestion. The total amount of GAG in scars was greatly increased, especially in earlier phases, in comparison with that of normal tissue, and it gradually decreased with time. Even in different phases of scar, a decrease of hyaluronic acid (HA) was commonly observed in contrast to an increase in

sulfated GAG, i.e., dermatan sulfate (DS) in particular among constituents. A similar behavior of GAG was observed in **keloid** specimens. Any striking difference of GAG constituents between the scar in the hypertrophic phase and the **keloid** remained indistinguishable.
AN 1977:192464 BIOSIS
DN PREV197764014828; BA64:14828
TI THE ENZYMATIC DETERMINATION OF ACIDIC GLYCOSAMINO GLYCANS IN SCAR AND **KELOID** WITH **CHONDROITINASE**.
AU SASAKI S; AKASHI Y
SO Journal of Dermatology (Tokyo), (1976) Vol. 3, No. 5, pp. 205-208.
CODEN: JDMYAG. ISSN: 0385-2407.
DT Article
FS BA
LA Unavailable

L4 ANSWER 24 OF 28 MEDLINE on STN
AN 77141396 MEDLINE
DN PubMed ID: 798737
TI The exzymatic determination of acidic glycosaminoglycans in scar and **keloid** wtih **chondroitinase**.
AU Sasaki S; Akashi Y
SO The Journal of dermatology, (1976 Oct) Vol. 3, No. 5, pp. 203-8.
Journal code: 7600545. ISSN: 0385-2407.
CY Japan
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 197705
ED Entered STN: 13 Mar 1990
Last Updated on STN: 6 Feb 1998
Entered Medline: 25 May 1977

L4 ANSWER 25 OF 28 MEDLINE on STN
AB 7 clinically uninvolved as well as 8 involved (6 moderately, 2 markedly) back or forearm skin specimens from 12 patients with systemic **scleroderma** were subjected to quantitative evaluation and to qualitative analysis of glycosaminoglycans (GAG) by one-dimensional and two-dimensional cellulose acetate electrophoresis. Skin specimens from the back, clinically uninvolved but histologically demonstrating the initial change, revealed increased amounts of hyaluronidase, **chondroitinase**-resistant GAG of varying electrophoretic mobilities, and one of them was chemically confirmed to be heparan sulfate variant, whereas involved skin specimens showed hardly this increase.
AN 76066579 MEDLINE
DN PubMed ID: 127727
TI Initial change of glycosaminoglycans in systemic **scleroderma**.
AU Ishikawa H; Horiuchi R
SO Dermatologica, (1975) Vol. 150, No. 6, pp. 334-45.
Journal code: 0211607. ISSN: 0011-9075.
CY Switzerland
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 197603
ED Entered STN: 13 Mar 1990
Last Updated on STN: 13 Mar 1990
Entered Medline: 1 Mar 1976

L4 ANSWER 26 OF 28 MEDLINE on STN
AB As hypertrophic and **keloid** scars are formed essentially by fibrous connective tissue, the therapeutic response of an enzyme with specific action on mucopolysaccharides of the fundamental connective tissue substance (Thiomucase) was studied. This compound has been used with desamethazone phosphate in the ratio of 1:1 with promising results.
AN 76196588 MEDLINE
DN PubMed ID: 1226244
TI [Treatment of hypertrophic and **keloid** cicatrices with thiomucase].

Il trattamento delle cicatrici ipertrofiche e cheloidee mediante thiomucase.
AU Donati L; Taidelli Palmizi G A
SO Minerva chirurgica, (1975 Mar 31) Vol. 30, No. 6, pp. 326-33.
Journal code: 0400726. ISSN: 0026-4733.
CY Italy
DT Journal; Article; (JOURNAL ARTICLE)
LA Italian
FS Priority Journals
EM 197608
ED Entered STN: 13 Mar 1990
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L4 ANSWER 27 OF 28 CA COPYRIGHT 2006 ACS on STN
AB Acidic glycosaminoglycans (AGG) in the urine of patients with systemic **scleroderma** were prepared by a modified method of Antonopoulos et al (1964). Dowex 1 + 2 column chromatog. showed chondroitin sulfate (chs) B and heparan sulfate (HS) as well as chs A and C. One or more bands of HS were detected by electrophoretic separation on cellulose acetate. In the AGG preparation, the PrOH-insol. fraction was much greater in urine of normal individuals. This fraction was applied to Dowex 1 + 2 column chromatog. and showed chs B and a variant. On paper chromatog. separation of the unsatd. disaccharides after digestion with **chondroitinase** ABC and AC, approx. 50% of the sample remained at the origin. The PrOH-insol. fraction showed low uronic acid content, pos. Molisch reaction, and resistance to digestion with **chondroitinases**. AGG patterns pre- and post-treatment with asiaticoside, D-thyroxine, or human placenta preparation showed improvement to normal.
AN 87:51351 CA
TI Urinary acidic glycosaminoglycans in patients with systemic **scleroderma** and its changes by clinical improvement treated with a few drugs
AU Sasaki, Soichiro
CS Dep. Dermatol., Hyogo Coll. Med., Nishinomiya, Japan
SO Rinsho Kagaku Shinpojumu (1975), 15, 25-9
CODEN: RKASDA; ISSN: 0386-3417
DT Journal
LA Japanese

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AN 1973:160806 BIOSIS
DN PREV197355060799; BA55:60799
TI STUDIES OF ACID MUCO POLY SACCHARIDES ON SCARS AND **KELOIDS**.
AU AKASHI Y
SO Hifu, (1972) Vol. 14, No. 1, pp. 17-30.
CODEN: HIFUAG. ISSN: 0018-1390.
DT Article
FS BA
LA Unavailable